

AMENDMENT UNDER 37 C.F.R. § 1.116  
EXPEDITED PROCEDURE  
GROUP 1742  
**PATENT APPLICATION**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of

Docket No: Q78557

Setsuo MISHIMA, et al.

Appln. No.: 10/715,568

Group Art Unit: 1742

Confirmation No.: 5060

Examiner: Kathleen A. McNelis

Filed: November 19, 2003

For: MARAGING STEEL AND METHOD OF PRODUCING THE SAME

**SUPPLEMENT TO AMENDMENT UNDER 37 C.F.R. § 1.116**

**MAIL STOP AF**

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

Further responsive to the outstanding rejection of March 7, 2006, please change the Remarks in that AMENDMENT to read as follows:

**REMARKS**

At page 6 of the AMENDMENT of June 7, 2006, please amend the second full paragraph to read as follows:

In a second step, the consumable electrode is melted under vacuum. During melting the steel under vacuum, Mg which is formed as the MgO type oxide vaporizes, whereby oxide inclusions are decomposed to generate oxygen which diffuses into a gas phase and a liquid phase so that oxide inclusions are reduced. **Further, by such remelting, it is also possible to reduce the Mg content to "less than 15ppm", a content level which does not adversely affect the toughness of the maraging steel.** Although a part of the oxygen diffuses into the molten steel to generate fresh oxide inclusions, such oxide inclusions are fine because the melting process is carried out under vacuum. See the present specification at page 8, lines 16-26.

SUPPLEMENT TO AMENDMENT UNDER 37 C.F.R. § 1.116  
U.S. Appln. No. 10/715,568

As additional remarks, Applicants wish to point out that the maraging steel as defined in claim 5 contains from more than 0 to less than 15ppm Mg, the maraging steel being a final product material. On the other hand, the consumable electrode should contain not less than 5ppm Mg. When the consumable electrode is subjected to vacuum remelting, the Mg content (i.e., not less than 5ppm) decreases (for example, to be close to 0) by vaporization.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

SUGHRUE MION, PLLC  
Telephone: (202) 293-7060  
Facsimile: (202) 293-7860

/Peter D. Olexy/  
Peter D. Olexy  
Registration No. 24,513

WASHINGTON OFFICE

**23373**

CUSTOMER NUMBER

Date: July 27, 2006